Claims

1. (Amended) A method of producing a membrane-electrode assembly for fuel cell comprising:

a first step of spreading a first coating compound comprising a first catalyst and a resin having hydrogenionic conductivity over a substrate to form a first layer;

a second step of spreading a second coating compound comprising a resin having hydrogenionic conductivity over said first layer to form a second layer; and

a third step of spreading a third coating compound comprising a second catalyst, a resin having hydrogenionic conductivity and a solvent over said second layer before drying of said second layer to form a third layer and prepare a laminate comprising said first layer, said second layer and said third layer,

wherein said solvent contains an organic solvent having a saturated vapor pressure of 1.06 kPa (8 mmHg) or less at 20°C in a proportion of 40% by weight or more; and 90% or more of the drying step of drying said laminate is effected at a temperature of from 60°C to 80°C.

2. (Amended) A method of producing a membrane-electrode assembly for fuel cell of Claim 1,

ART 34 AMDT

wherein said solvent contains an organic solvent having a saturated vapor pressure of 0.20 kPa (1.5 mmHg) or less at 20°C.

3. (Amended) A method of producing a membrane-electrode assembly for fuel cell of Claim 1 or 2, wherein said organic solvent contains a compound represented by the following general formula (A):

$R_1 - O - (R_2O)_n - H$ (A)

wherein R_1 is one functional group selected from CH_3, C_2H_5, C_3H_7 and C_4H_9;

R_2 is one functional group selected from C_2H_4 and C_3H_6; and

n is one integer selected from 1, 2 and 3.

4. (Amended) A method of producing a membrane-electrode assembly for fuel cell of Claim 1, wherein the viscosity η_1 of said second coating compound at a temperature of 25°C and a shear rate of 1 s^{-1} and the viscosity η_2 of said third coating compound at a temperature of 25°C and a shear rate of 1 s^{-1} satisfy the following relationship:

$1/25 \leqq \eta_1/\eta_2 \leqq 25$

wherein η_1 and η_2 each are greater than 0.

5. (Added) A polymer electrolyte type fuel cell comprising a membrane-electrode assembly for fuel cell produced by a method of producing a membrane-electrode assembly for fuel cell of Claim 1 and a separator through which a reactive gas is supplied into said membrane-electrode assembly for fuel cell.